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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,367	12/12/2003	Matthew B. Buczek	13DV-13879 (07783-0117)	1840
31450	7590	09/25/2006	EXAMINER	
MCNEES WALLACE & NURICK LLC 100 PINE STREET P.O. BOX 1166 HARRISBURG, PA 17108-1166			DIXON, MERRICK L	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,367

Applicant(s)

BUCZEK

Examiner

Merrick Dixon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on rice of 9-1-06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

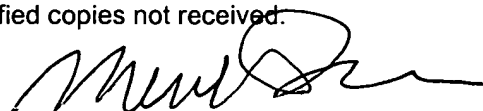
### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



MERRICK DIXON  
PRIMARY EXAMINER

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough et al(US 5356707) in view of Kochman et al(US 5824996).

The cited primary reference teaches the claimed invention including electrically resistant tow having stretched carbon fibers- col 8, lines 54-68; col 10, lines 11-15. Although the primary reference substantially teaches the claimed invention, it however fails to teach its tow having controlled, predetermined electrical resistance even in changed environment. The secondary reference, however, teaches this aspect. The secondary reference teaches that it is known in the art to have tow material have controlled, predetermined electrical resistance even in changed environment- col 7, lines 54-65; col 9, lines 2-9; col 9, lines 65-67; col 10, lines 11-18; col 12, lines 30-32; claims 13 and 26. it would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teachings of the secondary reference to Kochman et al and utilize such tow imparted with such claimed electrical resistance, in the primary reference, in the absence of unexpected results motivated by the desire to impart desired properties thereto. Concerning claims 5 and 6, the primary reference teaches stabilizing step and apparent turbstratic orientation for its fibers within the tow- col 11, lines 36-40; col 11, lines 36-60. Concerning claims 2, 4, it is believed there would be

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carbon molecules being aligned via the aspect of the fibers being crimped- col 10, lines 65- col 11, line 22; col 13, lines 13-20. the secondary reference teaches such alignments. Concerning claim 7, the primary reference teaches an increased electrical resistance in col 10, lines 6-8. the secondary reference teaches this aspect throughout the reference.

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Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMullough Jr, et al (US 5356707) in view of Kochman et al(US 5824996). The primary reference teaches the basic claimed invention including a method for making a tow of several carbon fiber members, comprising stressing carbon PAN fibers, subjecting same to elevated temperature, adding additional types fibers thereto and blending the fibers to form a tow- col 9, line 44- col 10, line 15; col 11, lines 13-22; col 8, lines 54-68. The primary reference, however, fails to teach its tow having controlled, predetermined electrical resistance even in changed environment. The secondary reference, however, teaches this aspect. The secondary reference teaches that it is known in the art to have tow material , as taught by the primary reference, have controlled, predetermined electrical resistance even in changed environments- col 7, lines 54-65; col 9, lines 2-9; col 9, lines 65-67; col 10, lines 11-18; col 12, lines 30-32; claims 13 and 26. It would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teachings of the secondary reference to Kochman et al and utilize such tow as taught in the primary reference, imparted with such claimed electrical resistance, , in

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the absence of unexpected results motivated by the desire to impart desired properties thereto. Concerning claim 16, the reference teaches stretch breaking process in col 10, line 35-37. Concerning claims 15 and 17, it is submitted the types of fiber filaments used during the process is of no patentable consequences which must be manipulatively distinct.

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Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schimpf et al( US 5098688) in view of Kochman et al( US 5824996).

The cited primary reference teaches the claimed invention including a process for a tow comprising stressing the tow, heating same at least twice- col 2, lines 54-68. The primary reference, however, fails to teach its tow having controlled, predetermined electrical resistance even in changed environment. The secondary reference, however, teaches this aspect. The secondary reference teaches that it is known in the art to have tow material , as taught by the primary reference, have controlled, predetermined electrical resistance even in changed environments- col 7, lines 54-65; col 9, lines 2-9; col 9, lines 65-67; col 10, lines 11-18; col 12, lines 30-32; claims 13 and 26. It would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teachings of the secondary reference to Kochman et al and utilize such tow as taught in the primary reference, imparted with such claimed electrical resistance, , in the absence of unexpected results motivated by the desire to impart desired properties thereto. concerning claims 9 and 11, the reference teaches stabilizing steps and

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adding heating steps in col 2, line 54-68. Concerning claim 12, the reference teaches PAN fibers in col 2, lines 11-15. Concerning claim 13, the reference teaches graphitization in col 2, lines 40-46. Concerning claim 10, the reference teaches carbonization in col 2, lines 13-15 as required by claim 10.

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Applicants who wish to send a facsimile (draft copies) for the examiner's immediate review can do so by using the Examiner's personal fax number at 571-273-1520. The faxing of all papers must conform with the notice published in the Official Gazette, 1096 O.G. 30 ( November 15, 1989). **NOTE: All facsimiles sent to the examiner's personal fax number should be in draft-forms and will be treated as informal.**

**Same facsimiles will not be entered** in the related applications unless otherwise agreed and noted by the examiner.

**The fax number for all other fascimile is 571-273-8300.**

Information about **the status of an application** may be obtained from the Patent Information Retrieval system (**Private PAIR**).

Status inquires for **published applications** may be retrieved from either **Private PAIR** or **Public PAIR**. Questions about the PAIR system should be directed to the Electronic Business Center at **866-217-9197**.

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Any questions concerning the instant communication should be directed to Examiner  
Dixon, at 571-272-1520, Mondays, Wednesdays and Thursdays, between 12 noon and  
8 PM, eastern time .

A handwritten signature in black ink, appearing to read 'Merrick Dixon', with a stylized, flowing script.

Merrick Dixon

Primary Examiner

Group 1700